

Patient information from Gordon Muir, Consultant Urological Surgeon

Please do not rely on this information unless you have been specifically sent this by Mr Muir

Varicocoele

Varicocoeles are curious looking swellings of the veins around the testicle, and are very common. The basic problem is failure of a valve between the veins which drains the testicle into the main veins higher up in the body. Probably due to the fact that men do not develop entirely symmetrically, it is much more common to have a varicocoele on the left side.

In some men, varicocoeles are associated with either testicular discomfort or infertility. However it is important to realise that treatment will not always improve these problems, but about 70% of men with varicocoeles and poor sperm counts will see a benefit, and around 60% of men with pain will be likely to improve.

Treatment

There are several ways to treat varicocoeles, which are best confirmed by ultrasound. The traditional way of dealing with a varicocoele was by making a cut in the groin region and dividing the veins at this level. This does however run the risk of causing numbness or worsened discomfort in the testicle in a small number of men.

Our usual approach is that men with a varicocoele on only the left side can be treated by **embolisation**, where a fine tube is threaded via the right groin to the testicular vein and the vein is blocked off using small metal coils. Embolisation has around a 75% long term success rate. Embolisation is carried out under local anaesthetic using X-rays to control closure of the vein, and usually leads to the least time off normal activity. It may be more difficult if the Varicocoele is on the right side, but can usually be carried out successfully.

If men wish a higher chance of success with a single procedure, or in failed embolisations, we recommend either **microscopic sub-inguinal** or laparoscopic **varicocoele repair**. Each of these minimally invasive options has pros and cons, with the choice depending on each patient seen as an individual.

The different surgical options are discussed below.

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Laparoscopic varicocele repair

This involves passing a telescope via the abdomen and dividing the abnormal veins inside the body. Although it requires general anaesthesia it has a very high cure rate with only a small risk of side effects and can usually be done as a day case. In men with pain which is difficult to define this can also be a good option since a hernia can be confidently excluded and if necessary treated by the same approach. So far in our hands this has a cure rate in excess of 95%, although some men with pain may find that it persists even when the varicocele is gone.

Why might I need a Laparoscopic Varicocele Repair?

You have been diagnosed as having a varicose vein affecting the testicle on one or both sides and it has been decided to fix this. Varicoceles may cause trouble with either pain or with abnormal sperm counts. Although the varicocele presents as a problem in the scrotum the primary abnormality is in fact in a vein valve up the level of the kidney and the operation is designed to divide any abnormal veins inside the abdomen before they come down to the testicle. Laparoscopic varicocele ligation is a keyhole operation to remove the abnormal communications between the top of the testicular vein and the lower part.

This operation may be being carried out either for an abnormal sperm count or for a pain depending on your individual situation and this will have been discussed with you.

What sort of anaesthetic is required?

The procedure is carried out under light general anaesthetic. Patients can usually go home later the same day.

What side effects can occur?

All operations can have some side effects such as infection or bleeding: With Laparoscopic varicocele repair, the risk of converting to an open operation for such problems is less than one in fifty. Rarely a collection of fluid swelling around the testicle may develop (a hydrocoele). This is in no way harmful but can occasionally require corrective surgery at a later date. With any operation on the veins to the testicle or the artery to the testicle there is a theoretical risk of the blood supply to the testicle being damaged and the testicle diminishing in size. This risk is less than 1 in 100 with laparoscopic varicocele repair. Lastly no operation is absolutely failsafe, we have a success rate of greater than 95% in terms of treating the varicocele. The effects on sperm count and pain are less easy to predict, and need to be discussed with each patient on an individual basis.

How is the operation done?

A small cut is made in the tummy button and a telescope is introduced which allows surgical instruments to be placed through other 5mm incisions in the lower abdomen. The veins draining the testicle are identified, dissected out and divided using a special instrument called the Harmonic Scalpel. Finally the small holes in the abdomen are closed with dissolvable stitches.

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Microscopic subinguinal varicocele repair

This involves making a small cut to the side of the scrotum, and dividing the abnormal veins outside the body – a surgical microscope is used to identify the veins and preserve other structures. Although it usually requires general anaesthesia it has a very high cure rate with only a small risk of side effects and can usually be done as a day case. So far in our hands this has a cure rate in excess of 95%, although some men with pain may find that this may persist even when the varicocele is gone. This technique may have a marginal benefit over laparoscopic repair in fertility terms.

Why might I need a Microscopic subinguinal varicocele repair?

You have been diagnosed as having a varicose vein affecting the testicle on one or both sides and it has been decided to fix this. Varicoceles may cause trouble with either pain or with abnormal sperm counts. Although the varicocele presents as a problem in the scrotum the primary abnormality is in fact in a vein valve up the level of the kidney and the operation is designed to divide any abnormal veins inside the abdomen before they come down to the testicle. Subinguinal repair is a minimally invasive operation to remove the abnormal communications between the top of the testicular vein and the lower part.

This operation may be being carried out either for an abnormal sperm count or for a pain depending on your individual situation and this will have been discussed with you.

What sort of anaesthetic is required?

The procedure is carried out under light general anaesthetic. Patients can usually go home later on the same day.

What side effects can occur?

All operations can have some side effects such as infection or bleeding. With any operation on the veins to the testicle or the artery to the testicle, there is a theoretical risk of the blood supply to the testicle being damaged and the testicle diminishing in size. This risk is less than 1 in 100. Lastly no operation is absolutely failsafe we have a success rate of greater than 95% in terms of treating the varicocele. The effects on sperm count and pain are less easy to predict, and need to be discussed with each patient on an individual basis.

How is the operation done?

A small cut is made to the side of the scrotum and the vessels identified. The veins draining the testicle are identified, dissected out and divided using a surgical microscope, preserving the arteries and lymphatic vessels. Finally the small wound is closed with dissolvable stitches.

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Recovery Period

- You should be well enough to go home a few hours after the surgery or you may prefer to stay overnight.
- Some discomfort and swelling around the wound or wounds is normal after the operation. This usually responds well to simple analgesics; painkillers are usually prescribed for the first few days. The veins in the scrotum may become engorged and painful for a few weeks as they clot and are absorbed by the body's natural healing process.
- You will require approximately a week off work if you work in an office, and two weeks if you are a manual worker. Heavy lifting should be avoided for around one month following either surgical approach

Wound infections are rare, but always be aware of signs of:

- Weeping, oozing wound
- Red, hot wound to touch
- Temperature over 38 degrees
- Bruising or swelling at incision site

If you think that swelling is excessive or the wound begins to bleed and does not stop with gentle pressure after 5 minutes, please contact the hospital.